

Amendments to the Specification

Please replace the Abstract with the following amended Abstract.

~~The invention relates to a A method and a device for correcting the thickness of a metal strip during rolling comprising includes a roll stand with adjusting elements to regulate the thickness of the strip and at least one take-up coiler. The object to provide a method and a device to correct the thickness of a metal strip during rolling using a roll stand which ensures the production of rolled strip with a reduced thickness tolerance is solved according to method by involves the fact that an average strip thickness of a strip section is determined from at least one strip length measurement and the measurement of the dedicated rotation of the take-up coiler and the adjusting elements of the roll stand are controlled at least depending on the average strip thickness of the strip section. With the method according to the invention the The adjusting elements can be controlled almost independently of the ambient conditions of the roll stand so that the thickness tolerances of the rolled strip can be effectively reduced.~~

Fig. 1 is proposed for publication with the abstract.

Please replace the paragraph corresponding to [0009] in the published application (Publication No. US 2006/0123861) with the following amended paragraph:

According to a first teaching of the present invention, the object derived and indicated previously is solved according to a method in that an average strip thickness of a strip section is determined from at least one strip length measurement and the measurement of the dedicated rotation

of the take-up coiler and the adjusting elements of the roll stand are controlled at least depending on the determined average strip thickness of the strip section. In this case, use is made of the fact that the average layer spacing of the strip on the take-up coiler is linked to the measured strip length and take-up coiler rotation from which the average strip length can be determined by means of a fill factor. The required measurement of the strip length and the take-up coiler rotation are in this case almost independent of the variables of the radiometric thickness measurement so that a measured value of the average strip thickness of a strip section, independent of the ambient conditions of the roll stand, is provided. It has been shown that even after short strip lengths a sufficiently accurate value for the average strip length thickness can be determined. By controlling the adjusting elements at least depending on the determined average thickness of the strip section, a reduction in the thickness tolerances of the rolled strip can thus be achieved.

Please replace the paragraph corresponding to [0031] in the published application with the following amended paragraph:

As FIG. 1 shows, the deflecting roller 3 can be used in principle to measure the strip lengths L_n or L_m but a non-contact and non-slip measurement using the LDV system 5 is to be preferred since a substantially more accurate strip length measurement is achieved. High-resolution incremental sensors 6 arranged on the axis of the take-up coiler 7 yield the dedicated number n or m of rotations of the take-up coiler 4. These measured values are first used to calculate an average layer spacing h using the above formula so that the average strip thickness of a strip section can then be calculated from h with the aid of a fill factor. The average strip thickness is calculated after an adjustable strip length

using the computer 10 which on the one hand displays the measured average strip thickness via the display 11 and on the other hand, passes on the value for dynamic thickness correction to a first comparator 12. In the comparator 12 the value of the average strip thickness is compared with the desired thickness 13 of the strip 1 and the difference is passed onto a next comparator 14 as a dynamic thickness variation. The value of the dynamic thickness variation is added to the radiometric strip thickness 15 determined using the emitter 8 and the detector 9 in the comparator 14 and passed on to a further comparator 17 as a dynamically corrected actual thickness 16. Said comparator now determines the control variable for controlling the adjusting elements 18 from the deviation of the dynamically corrected actual thickness 16 from the desired thickness 13. The value of the dynamic thickness correction can be determined sufficiently accurately during the rolling process after short strip lengths, for example, after a coiled strip length of about 50 m. This does not apply to the beginning of the rolling process since in this case, the fluctuations as a result of the coiling process are still too large but in the further course of the rolling process, there is a possibility for correcting the radiometrically determined strip thickness 15 which is independent of the variables of the radiometric strip thickness measurements. By excluding these variables, the adjusting elements of the roll stand 18 can be controlled substantially more accurately which results in a significant reduction in the strip thickness tolerances.

Please replace the paragraph corresponding to [0035] in the published application with the following amended paragraph:

Thus, if the deviation of the average strip thickness 37 from the desired thickness 33 is less than 1% of the desired thickness or the actual value of

the strip length 32 is greater than a starting value of the strip length 35, a signal is applied to the input 25 of the AND gate 19. If the inputs 20 to 25 of the AND gate 19 are actuated, the output 41 of the logic circuit is set to “auto correction switched on” via the output 26 of the AND gate 19 with the aid of the setting element 40. At the same time, a signal is applied to the input 42 of the PID element 43. The PID element 43 then determines the dynamic thickness correction 44 of the radiometrically measured actual thickness [[46]] of the strip from the control deviation applied in the form of the difference 39 between the desired thickness 33 and the average strip thickness 37 determined using the LDV method. However, a comparing element 46 connected to the PID element 43 can prevent the regulation of the PID element 43 if the control deviation 39 is, for example, smaller than 1% of the desired thickness 33.

Please replace the paragraph corresponding to [0038] in the published application with the following amended paragraph:

In addition, using the switch 50 it is also possible to switch over the control system of the adjusting elements manually to the actual thickness [[46]] 45 by connecting the output 51 of the switch 50 to the input 52 of the switch 50. Under certain circumstances an automatic switchover to control using the actual thickness [[46]] 45 can take place, that is if the output 41 is reset via the OR gate 53 of the reset element 54. This is the case if the output input 55 of the OR gate 53, which verifies the operating state of the emitter in the outlet or the input 56 of the OR gate 53, which monitors the strip speed falling below a minimum value, carry a signal. By this means, for example, it can be prevented that despite the emitter 8 being switched off in the outlet of the strip 1, an automatic thickness correction is made.